

Serial Number 09/514,579

APPENDIX B
(Marked-Up Copy Of Twice Amended Claims)

1. (Twice Amended) An electronic switching device for a universal serial bus (USB) interface, comprising a trigger signal generator, a control signal generator, and a connector, wherein:

the trigger signal generator has an output to be connected with an input of the control signal generator, and a switch to output a trigger signal to the control signal generator when a user enables the switch;

the trigger signal generator comprises a resistor, a capacitor, and a switch, the resistor and the capacitor being serially connected between a power supply and a ground, one end of the switch being connected to the ground, and the other end of the switch being connected to where the resistor and the capacitor are connected, such that when a user enables the switch, the switch will generate a pulse signal to be used as a trigger signal for outputting to the control signal generator;

the control signal generator has an input to be connected with an output of the trigger signal generator, and an output to be connected with an input of the connector, for receiving the trigger signal outputted from the trigger signal generator, processing the trigger signal, and then outputting a control signal to the connector; and

the connector has an input to be connected with each universal serial bus (USB) interface of at least two electronic devices, and an output to be connected with a universal serial bus (USB) interface of another electronic device, such that when the connector receives the control signal outputted from the control signal generator, the connector will connect related universal serial bus (USB) interfaces according to the control signal.

3. (Twice Amended) An electronic switching device for a universal serial bus (USB) interface, comprising a trigger signal generator, a control signal generator, and a connector, wherein:

the trigger signal generator has an output to be connected with an input of the control signal generator, and a switch to output a trigger signal to the control signal generator when a user enables the switch;

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the control signal generator has an input to be connected with an output of the trigger signal generator, and an output to be connected with an input of the connector, for receiving the trigger signal outputted from the trigger signal generator, processing the trigger signal, and then outputting a control signal to the connector; and

the connector has an input to be connected with each universal serial bus (USB) interface of at least two electronic devices, and an output to be connected with a universal serial bus (USB) interface of another electronic device, such that when the connector receives the control signal outputted from the control signal generator, the connector will connect related universal serial bus (USB) interfaces according to the control signal, and

the control signal generator comprises a D FLIP-FLOP having a clock signal input terminal to be used as the input of the control signal generator, and a reverse data output terminal to be connected with a data input terminal of the D FLIP-FLOP, a positive data output terminal of the D FLIP-FLOP being used as the output of the control signal generator.

4. (Twice Amended) An electronic switching device for a universal serial bus (USB) interface, comprising a trigger signal generator, a control signal generator, and a connector, wherein:

the trigger signal generator has an output to be connected with an input of the control signal generator, and a switch to output a trigger signal to the control signal generator when a user enables the switch;

the control signal generator has an input to be connected with an output of the trigger signal generator, and an output to be connected with an input of the connector, for receiving the trigger signal outputted from the trigger signal generator, processing the trigger signal, and then outputting a control signal to the connector; and

the connector has an input to be connected with each universal serial bus (USB) interface of at least two electronic devices, and an output to be connected with a universal serial bus (USB) interface of another electronic device, such that when the connector receives the control signal outputted from the control signal generator, the connector will connect related universal serial bus (USB) interfaces according to the control signal, and

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the connector comprises a multiplexor, an input and an output of the multiplexor being connected respectively with each universal serial bus (USB) interface of different electronic devices, and a selecting signal input terminal thereof being connected with the output of the control signal generator.

5. (Twice Amended) An electronic switching device for a universal serial bus (USB) interface, comprising a trigger signal generator, a control signal generator, and a connector, wherein:

the trigger signal generator has an output to be connected with an input of the control signal generator, and a switch to output a trigger signal to the control signal generator when a user enables the switch;

the control signal generator has an input to be connected with an output of the trigger signal generator, and an output to be connected with an input of the connector, for receiving the trigger signal outputted from the trigger signal generator, processing the trigger signal, and then outputting a control signal to the connector; and

the connector has an input to be connected with each universal serial bus (USB) interface of at least two electronic devices, and an output to be connected with a universal serial bus (USB) interface of another electronic device, such that when the connector receives the control signal outputted from the control signal generator, the connector will connect related universal serial bus (USB) interfaces according to the control signal, and

the control signal generator comprises at least two D FLIP-FLOPs, a clock signal input terminal of the first D FLIP-FLOP being connected with the output of the trigger signal generator, while a reverse data output terminal is connected with its data input terminal; a clock signal input terminal of the second D FLIP-FLOP being connected with the reverse data output terminal of the first D FLIP-FLOP, while a reverse data output terminal of the second D FLIP-FLOP is connected with its data input terminal; and so on; and the positive data output terminals of all the D FLIP-FLOPs being used as the control signals for the connector.

6. (Twice Amended) An electronic switching device for a universal serial bus (USB) interface, comprising a trigger signal generator, a control signal generator, and a connector, wherein:

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the trigger signal generator has an output to be connected with an input of the control signal generator, and a switch to output a trigger signal to the control signal generator when a user enables the switch;

the control signal generator has an input to be connected with an output of the trigger signal generator, and an output to be connected with an input of the connector, for receiving the trigger signal outputted from the trigger signal generator, processing the trigger signal, and then outputting a control signal to the connector; and

the connector has an input to be connected with each universal serial bus (USB) interface of at least two electronic devices, and an output to be connected with a universal serial bus (USB) interface of another electronic device, such that when the connector receives the control signal outputted from the control signal generator, the connector will connect related universal serial bus (USB) interfaces according to the control signal, and

the connector comprises at least two identical multiplexors to be parallely connected for decreasing the internal resistance in the connector.

7. (Twice Amended) An electronic switching device for a universal serial bus (USB) interface, comprising a trigger signal generator, a control signal generator, and a connector, wherein:

the trigger signal generator has an output to be connected with an input of the control signal generator, and a switch to output a trigger signal to the control signal generator when a user enables the switch;

the control signal generator has an input to be connected with an output of the trigger signal generator, and an output to be connected with an input of the connector, for receiving the trigger signal outputted from the trigger signal generator, processing the trigger signal, and then outputting a control signal to the connector; and

the connector has an input to be connected with each universal serial bus (USB) interface of at least two electronic devices, and an output to be connected with a universal serial bus (USB) interface of another electronic device, such that when the connector receives the control signal outputted from the control signal generator, the connector will connect related universal serial bus (USB) interfaces according to the control signal, and

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a delay signal generator is provided between the trigger signal generator and the connector, having an input to be connected with the output of the trigger signal generator, and having an output to be connected with an enable terminal of the connector.

9. (Twice Amended) An electronic switching device for a universal serial bus (USB) interface according to claim [7] 1, wherein the control signal generator is connected with a display for showing the current connections of the universal serial bus (USB) interfaces.

12. (Twice Amended) An electronic switching device for a universal serial bus (USB) interface, comprising a trigger signal generator, a control signal generator, and a connector, wherein:

the trigger signal generator has an output to be connected with an input of the control signal generator, and a switch to output a trigger signal to the control signal generator when a user enables the switch;

the control signal generator has an input to be connected with an output of the trigger signal generator, and an output to be connected with an input of the connector, for receiving the trigger signal outputted from the trigger signal generator, processing the trigger signal, and then outputting a control signal to the connector; and

the connector has an input to be connected with each universal serial bus (USB) interface of at least two electronic devices, and an output to be connected with a universal serial bus (USB) interface of another electronic device, such that when the connector receives the control signal outputted from the control signal generator, the connector will connect related universal serial bus (USB) interfaces according to the control signal,

the control signal generator is connected with an enable signal generator so that the connections between different USB interfaces are the same whenever the power supply begins conducting; and

the enable signal generator comprises a resistor and a capacitor, the resistor and the capacitor being serially connected between the power supply and the ground, and a point where the resistor and the capacitor are connected being used as an output to be connected with a reset terminal of the control signal generator.

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13. (Twice Amended) An electronic switching device for a universal serial bus (USB) interface according to claim [7] 1, wherein the power supply used by the electronic switching device for a universal serial bus (USB) interface is the power supply used by the connected universal serial bus (USB) interface.

14. (Twice Amended) An electronic switching device for a universal serial bus (USB) interface according to claim [7] 1, wherein a diode is connected between the power supply and each USB interface to avoid the reverse current flowing from the connected universal serial bus (USB) interface to the power supply.

